

WHAT IS CLAIMED IS:

1. A method of strengthening a conveyable fiber lap in an endlessly circulating conveying device, the method comprising:

conveying the fiber lap using first and second converging rollers, each roller having an outer surface, at least the first roller being provided with profile elements on its outer surface, the profile elements being non-continuous in an axial direction of the first roller;

subjecting the fiber lap to a pressure when the fiber lap passes through a gap between the first and second rollers; and

strengthening the fiber lap by exerting the pressure by the converging rollers and the profile elements.

2. The method of claim 1, wherein the pressure exerted by the profile elements of the first roller is effective toward the second roller.

3. The method of claim 1, wherein the second roller is provided with profile elements on its outer surface and pressure exerted by the profile elements of the first roller is effective toward the profile elements of the second roller.

4. The method of claim 1, wherein the profile elements press locally onto the fiber lap.

5. The method of claim 1, wherein the second roller is provided with profile elements and a gap exists between circles defined by outer circumferences of the profile elements of the two rollers.

6. The method of claim 1, wherein the rollers rotate in opposite directions.

7. The method of claim 1, wherein a force is applied to one of the first and second rollers by an urging member, the force being directed toward the other of the first and second rollers.

8. The method of claim 1, wherein the second roller is smooth.

9. The method of claim 1, wherein a width of the rollers exceeds a width of the fiber lap to be strengthened.

10. The method of claim 1, wherein the profile elements have a round cross section.

11. The method of claim 1, wherein the profile elements have a square cross section.

12. The method of claim 1, wherein the profile elements are tapered conically in a direction of ends of the profile elements.

13. The method of claim 1, wherein the profile elements are rounded at ends of the profile elements.

14. The method of claim 1, wherein the first roller further comprises a plurality of profile disks and a plurality of spacing disks, the profile elements protruding from an outer circumference of the profile disks.

15. The method of claim 1, further comprising running the fiber lap through two withdrawing rollers, the first and second rollers being located downstream in the direction of fiber lap movement from the withdrawing rollers.

16. The method of claim 1, further comprising withdrawing the fiber lap directly from a lap-gathering element located upstream in the direction of fiber lap movement from the first and second rollers.

17. The method of claim 16, wherein the lap-gathering element comprises a discharge region having a rectangular cross section.

18. The method of claim 17, wherein a ratio between a length and a width of the discharge region is at least 5:1.

19. The method of claim 1, wherein the profile elements are non-continuous in a circumferential direction of the first roller.

20. The method of claim 1, further comprising running the fiber bat through a main carding cylinder of a carding

machine for producing a fiber sliver, wherein the fiber bat is run through the endlessly circulating conveying device after it is run through the main carding cylinder.